

We claim:

- 1. A method of suppressing or eliminating tumor cells, comprising:
5 administering to a subject in need of treatment a therapeutically effective amount of insoluble whole glucan particles and at least one complement activating anti-tumor antibody; wherein the glucan and antibody suppresses or eliminates tumor cells.
- 10 2. The method of claim 1, wherein the antibody is introduced via direct administration of a monoclonal or polyclonal antibody or produced via a cancer vaccine.
- 15 3. The method of claim 1, wherein the antibody is selected from the group consisting of: trastuzumab, rituximab, cetuximab and combination thereof.
- 20 4. The method of claim 1, wherein whole glucan particles and antibody provide a synergistic antitumor effect.
5. The method of claim 1, wherein the whole glucan particles are administered orally.
- 25 6. The method of claim 1, wherein the whole glucan particle is administered parenterally.
7. The method of claim 1, wherein the whole glucan particle is derived from yeast.
- 30 8. The method of Claim 1, wherein the whole glucan particle is derived from a plant source or fungal source.
9. The method of Claim 8, wherein the plant source is barley.

10. The method of Claim 8, wherein the fungal source is mushroom.
11. Use of whole glucan particles and complement activating anti-tumor antibody for the manufacture of a medicament for use in treating a neoplastic cell, wherein the combination of glucan and antibody retards the growth of the cell.
12. A method of treating a neoplastic cell comprising administering to said cell a therapeutically effective dose of whole glucan particles and a complement activating antibody specific to the neoplastic cell.
13. The method of Claim 12, wherein the combination of glucan and antibody retards the rate of growth of the cell.
- 15 14. The method of Claim 12, wherein the combination of glucan and antibody inhibits the growth of the neoplastic cell.
15. The method of Claim 12, wherein the combination of glucan and antibody extends the survival time of a host of the neoplastic cell.
- 20 16. The method of Claim 1, wherein the complement activating antibody is coated on tumor cells and activates complement via iC3b deposition on the tumor cells.
- 25 17. The method of Claim 16, wherein the whole glucan particle is taken up by macrophages, degraded and the degraded fragments bind to neutrophils in the bone marrow and through chemotaxis migrate and bind to antibody coated tumor cells where complement has been activated via iC3b deposited on the tumor cells.

18. A method of suppressing or eliminating tumor cells, comprising:
administering to a subject in need of treatment a therapeutically effective
amount of insoluble whole glucan particles wherein the whole glucan
5 particles is taken up by macrophages, degraded and the degraded fragments
bind to neutrophils in the bone marrow and through chemotaxis migrate and
bind to antibody coated tumor cells where complement has been activated
via iC3b deposited the tumor cells by a naturally occurring complement
activating antibody, wherein the binding of glucan to the iC3b tumor cells
10 results in suppressing or eliminating the tumor cells.